

KERR-MCGEE CHEMICAL CORP. (SODA SPRINGS PLANT)

IDAHO

EPA ID# IDD041310707

Last Update: September, 2012

EPA Region 10

Caribou County

Soda Springs

2nd Congressional District

Other Names: Soda Springs Plant

Site Description

The Kerr-McGee Site (Soda Springs Plant) covers 158 acres and is located one mile north of Soda Springs, Idaho. The Site lies in a broad, flat valley near the western base of the Aspen Range. Since 1963, the plant generated a number of liquid wastes and stored them in on-site ponds. The Monsanto Chemical Company, another large industrial complex nearby that also is on the NPL, supplied Kerr-McGee with the by-product, ferrous-phosphate ore, used to extract vanadium for beneficial uses. During operations, the two largest on-site ponds held 5.5 million gallons of industrial waste water and 2,500 tons of tailings. The chemicals of concern found in these ponds included vanadium, arsenic, molybdenum, manganese, tributyl phosphate and total petroleum hydrocarbons. Ground water beneath the Site has been affected by chemicals leaking from the unlined holding ponds. Approximately 23 people live within one mile of the Site, and the city of Soda Springs, with about 3,000 people, is within 3 miles of the Site. Significant agricultural crops in the area include wheat and hay. Investigations have shown that neither Soda Springs public drinking water supplies nor private wells are impacted by releases from the Site.

Site Responsibility: This site is being addressed through federal oversight by EPA. Property formerly owned by Tronox Inc. LLC (successor to Kerr-McGee) near Soda Springs is currently owned and maintained by the Greenfield Environmental Multistate Trust LLC (Trust) for the benefit of the United States and the State of Idaho. The Trust is responsible for activities related to the Site.

NPL Listing History	Dates
Proposed Date:	05/05/89
Removed Date:	
Withdrawal Date:	
Final Date:	10/04/89
Deleted Date:	

Threats and Contaminants

Media Affected: [Groundwater](#), [Surface Water](#)

On-site monitoring wells, ponds, and solid waste contain vanadium, arsenic, molybdenum, manganese, tributyl phosphate and total petroleum hydrocarbons. Potential future health risks exist for anyone that begins drinking the contaminated ground water. The topography in the area

prevents the migration of contaminants to major surface water bodies off site, but there are localized impacts to two springs from groundwater seeps.

Cleanup Progress

A Record of Decision (ROD) was signed in September 1995, which required elimination of the three unlined waste ponds and pond sediments that released contamination to ground water above risk-based cleanup levels. Ground-water monitoring and institutional controls are required while contaminants in ground water naturally return to acceptable levels. In 1997, Kerr-McGee completed actions on two of three waste ponds. Kerr-McGee constructed an on-site landfill and disposed of 13,000 cubic yards of pond sediment, in order to close two of the waste ponds. In 1998, Kerr-McGee stopped all liquid wastes going to the calcine impoundments. Construction of a fertilizer plant to reuse 900,000 tons of buried calcine tailings, the third of the waste pond areas impacting groundwater, was completed in June 1998.

From June 1998 through 1999 Kerr-McGee tried unsuccessfully to process calcine tailings at a reuse rate sufficient to achieve the 8 to 10 year time frame specified in the ROD for closing the calcine impoundment. In early 2000 Kerr-McGee determined it was neither technically nor economically feasible to process the calcine tailings in the fertilizer plant in the required time frame. Instead, a ROD Amendment was submitted by Kerr-McGee to cap the calcine tailings in place. Capping was another alternative considered in the original feasibility study for the Site. Capping was selected by EPA in 2000 for the calcine tailings. The final capping of the calcine tailings was completed in August 2001. Ground-water monitoring and institutional controls are still expected to continue for property south of the Kerr-McGee plant until groundwater cleanup levels are achieved. The overall time frame for ground-water cleanup has not been significantly affected by the changes associated with implementing the 2000 ROD Amendment.

Semiannual groundwater sampling continues as required by the Long Term Monitoring Plan. The operations at the site have drastically changed since the Construction Completion Report. The previous operations which involved the extraction of vanadium pentoxide have ceased. The original buildings, except for a small administrative building, have been razed. The waste containment areas have been built and are inspected annually. There are no industrial operational activities taking place at the site. The site is in long-term O&M.

In January 2009, Tronox, Inc. (successors to Kerr-McGee) filed for Chapter 11 bankruptcy. As part of the resolution of the bankruptcy, Tronox ceased operations at the site and established, with the United States, the State of Idaho and other States, an environmental response trust which is associated with the Soda Springs site as well as others. Property formerly owned by Tronox near Soda Springs is currently owned and maintained by the Greenfield Environmental Multistate Trust LLC (Trust) for the benefit of the United States and the State of Idaho. The Trust is responsible for activities related to the Site.

A Five-Year Review of the Site was completed in September 2012. The results of that review indicate that the remedy for the site was constructed in accordance with the requirements of the ROD; however, the remedy does not currently protect human health and the environment.

Concentrations of contaminants of concern (COCs) in groundwater remain above the risk-based groundwater performance standards and trends indicate that cleanup goals will not be achieved in the foreseeable future. This information suggests the sources of COCs may still exist at the Site. Proprietary and Institutional Controls, including proprietary controls needed to protect against the use of groundwater with contaminant levels above risk-based groundwater performance standards, have not been fully developed and implemented on Greenfield Environmental Multistate Trust, LLC (Trust)-owned property. Institutional Controls have not been established or implemented for locations downgradient of the industrial facility where COCs exceed MCLs or risk-based groundwater performance standards. The contaminated groundwater may present a threat to human users of domestic wells downgradient of the industrial facility. Additionally, the extent of COC plumes originating at the Site is not well defined. Onsite fences surrounding the landfill and calcine caps that were established to restrict access to the remedy require repairs in specific areas. Vanadium levels at Finch Spring have increased 150 percent since the ROD was signed, raising questions about current ecological risks. To address these issues, the following actions should be taken:

1. Investigate and characterize possible additional sources of site-related COCs within the former Kerr-McGee facility.
2. Establish proprietary controls for Trust-owned property.
3. Develop an Institutional Control Plan and implement institutional controls governing groundwater use at locations downgradient of the industrial facility where COCs are known to exceed MCLs or risk-based groundwater performance standards.
4. Investigate current (and potential future) usage of domestic wells downgradient of the industrial facility and their relationship to the groundwater plume(s).
5. Augment/expand existing groundwater monitoring network and/or perform additional characterization work to better define plumes.
6. Repair identified fence sections located at the landfill and calcine caps.
7. Develop and implement a facility-wide O&M Plan.
8. Evaluate potential risks to ecological receptors in areas downgradient from the industrial facility.

Regional Contacts

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COMMUNITY INVOLVEMENT COORDINATOR:**E-MAIL ADDRESS****PHONE NUMBER:**

Information pertaining to this site is housed at the following location(s):

Soda Springs Public Library (Administrative Record)
149 South Main Street
Soda Springs, ID 83267
208-547-2606

EPA Region 10 Superfund Records Center (Administrative Record)
1200 Sixth Avenue, ECL-076
Seattle, WA 98101
